Courtesy Copy of the Unamended Claims:

1. (previously presented) A method of scheduling data transmissions between a base station and a plurality of user terminal traffic streams in a wireless QoS network, comprising:

transmitting a first poll from said base station to a first user terminal traffic stream in an active list of the user terminal traffic streams;

transmitting at least one frame from a group of data frames from said first user terminal traffic stream to said base station in response to said first poll, wherein a queue state of said first user terminal traffic stream is indicated in said frame;

removing said first user terminal traffic stream from said active list when said frame indicates that said queue state is empty;

calculating a deferral window for said first user terminal traffic stream;

scheduling transmissions of data frames between said base station and said plurality of user terminal traffic streams that remain on said active list; and

returning said first user terminal traffic stream to said active list at the expiration of said deferral window.

2. (previously presented) The method of claim 1, wherein said deferral window is calculated using an algorithm based on the following equation:

$$T_D = \begin{cases} T_i, & L_i/\rho_i \geq T_{db} \\ T_s, & otherwise \end{cases}$$

where T_I is an interval selected by a deferral window adaptation algorithm, T_{db} is a requested delay bound, L_I is a nominal data frame size, ρ_I is a mean data transfer rate, T_s is a scheduling window, and T_D is the duration of said deferral window.

3. (original) The method of claim 2, wherein T_I is calculated using an algorithm based on the following equation:

$$T_I = T_i - (T_W - T_Q) + \sigma$$

where T_W is the average time between a first in line data frame arrival point in a user terminal traffic stream queue and the arrival of a first poll since a previous return of said user terminal traffic stream to said active list, T_Q is the average time between the return of said user terminal traffic stream to said active list and the scheduled transmission of a next poll, and σ is a heuristic factor based on the inter-arrival period variance of an uplink traffic stream.

4. (original) The method of claim 1, wherein said deferral window is calculated based on a defined inter-arrival period of a user terminal traffic stream.

5. (original) The method of claim 4, wherein said inter-arrival period corresponds to a period between voice or video data frames generated by a codec.

6. (canceled)

7. (canceled)

8. (previously presented) A system of [illegible]ding data transmissions comprising:

a plurality of user terminal traffic st[illegible] in an active list; and

a base station, wherein said base station is operable to:

transmit a first poll to a first [illegible]erminal traffic stream selected from said plurality of user terminal traffic stre[illegible]

receive at least one frame from a group of data frames from said first user terminal traffic stream in response t[illegible] first poll, wherein a queue state of said first user terminal traffic stream is indic[illegible] said frame;

remove said first user termi[illegible]ffic stream from the active list when said frame indicates that said queue state is em[illegible]

calculate a deferral window [illegible]d first user terminal traffic stream;

schedule transmissions of data frames between said base station and said plurality of user terminal traffic streams that remain on said active list; and

return said first user termin[illegible]ffic stream to said active list at the expiration of said deferral window.

9. (previously presented) The system of claim 8, wherein said deferral window is calculated using an algorithm based on the following equation:

$$T_D = \begin{cases} L_i / r_i > T_m \\ otherwise \end{cases}$$

where T_i is an interval selected by a deferral window adaptation algorithm, T_{db} is a requested delay bound, L_i is a nominal data frame siz is a mean data transfer rate, T_s is a scheduling window, and T_{D_i} is the duration of said defi ndow.

10. (original) The system of claim 9, w T_i is calculated using an algorithm based on the following equation:

$$T_i = T_i - (T_W - T_Q) + \sigma$$

where T_{ii} is the average time between a fi ne data frame arrival point in a user terminal traffic stream queue and the arrival of a fi since a previous return of said user terminal traffic stream to said active list, T_Q is the e time between the return of said user terminal traffic stream to said active list and the sch transmission of a next poll, and σ is a heuristic factor based on the inter-arrival pe variance of an uplink traffic stream.

11. (original) The system of claim 8, w n said deferral window is calculated based on a defined inter-arrival period of a user term affic stream.

12. (original) The system of claim 11 in said inter-arrival period corresponds to a period between voice or video data frames enerated by a codec.

13. (canceled)

14. (canceled)

15. (previously presented) A system of ...ling data transmissions comprising:

a plurality of user terminal traffic s... in an active list;

a base station;

means for transmitting a first poll ... said base station to a first user terminal traffic stream selected among said plurality of user terminal traffic streams;

means for transmitting at least one frame from a group of data frames from said first user terminal traffic stream to said base station in response to said first poll;

means for removing said first user terminal traffic stream from the active list when said frame indicates that said queue state is empty;

means for calculating a deferral window for said first user terminal traffic stream using an algorithm based on the following equation:

$$T_D = \begin{cases} T_i, & L_i / \rho_i \geq T_{db} \\ T_s, & otherwise \end{cases} \quad (1)$$

where T_i is an interval selected by a deferral window adaptation algorithm, T_{db} is a requested delay bound, L_i is a nominal data frame size. ρ_i is a mean data transfer rate, T_s is a scheduling window, and ... is the duration of said d... window.;

means for selectively transmissi... data frames between said base station and said plurality of u... terminal traffic streams ...main on said active list; and

means for returning said first use... minal traffic stream to said active list at the expiration of said deferral window.

16. (original) The system of claim 15, w[illegible] T_i is calculated using an algorithm based on the following equation:

$$T_i = (T_w \quad T_e) + \sigma$$

where T_w is the average time between a fi[illegible]ne data frame arrival point in the user terminal traffic stream queue and the arrival of a fir[illegible] since a previous return of said user terminal traffic stream to said active list, T_e is the [illegible]e time between the return of said user terminal traffic stream to said active list and the sch[illegible]l transmission of a next poll, and σ is a heuristic factor based on the inter-arrival p[illegible] variance of an uplink traffic stream.

17. (canceled)

18. (canceled)